

**UNITED STATES DEPARTMENT OF COMMERCE****Patent and Trademark Office**Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

6

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/378,502	08/20/99	MCFEELLY	F Y0999-198

CASEY AUGUST  
INTELLECTUAL PROPERTY GROUP  
INTERNATIONAL BUSINESS MACHINES CORP  
P O BOX 218  
YORKTOWN HEIGHTS NY 10598

IM22/1004

EXAMINER	
STRAIN, P	
ART UNIT	PAPER NUMBER
1762	
DATE MAILED:	
10/04/00	

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/378,502	MCFEELY ET AL.
	Examiner	Art Unit
	Paul D Strain	1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-16 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-16 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - a) All b) Some \* c) None of the CERTIFIED copies of the priority documents have been:
    1. received.
    2. received in Application No. (Series Code / Serial Number) \_\_\_\_\_.
    3. received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

#### Attachment(s)

- |   |   |
|---|---|
| 15) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                    | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)           | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)  |
| 17) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 20) <input type="checkbox"/> Other: _____ .                                   |

### **DETAILED ACTION**

1. Claims 1-16 are pending in the Application.

#### ***Drawings***

2. The PTO Draftsperson has objected to Applicant's drawings under 37 CFR 1.84(g) and 1.84(i) as noted on the attached "Notice of Draftsperson's Patent Drawing Review", Form PTO 948.

#### ***Claim Objections***

3. Claim 1 is objected to because of the following informalities:

In line 8 of claim 1, the word "in" appears to be a typographical error. The Examiner suggests that Applicant delete the word and substitute --is-- therefor. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Wen et al* (US Patent 5,553,395), hereinafter "Wen" in view of *Tenhover et al* (US Patent 4,851,296), hereinafter "Tenhover".

Tenhover discloses a method of chemical vapor deposition of tungsten hexacarbonyl on substrates such as glass, steel, etc (col. 6, line 37; col. 5, lines 10-20; col. 4, lines 50-55). The Examiner notes that glass and steel typically comprise silicon. Tenhover lacks a teaching to employ the specific bubbler and liquids of Wen.

Wen discloses a bubbler for CVD processes (col. 1, lines 5-30). Solid particles are placed in the bubbler and gas is allowed to flow through the particles (Fig. 3 and Fig. 4) A heat bath is employed as part of the bubbler apparatus to maintain the solids at a constant temperature (col. 5, lines 50 *et seq*; col. 3, line 1-col. 4, line 15). The Examiner notes that Applicant's claim requires "adding a liquid to...said apparatus". The Examiner takes Official Notice that oils having a high heat capacity, such as silicone oil, are typically employed in heating baths. If Applicant disagrees Applicant should so state for the record in response to this Office Action.

Art Unit: 1762

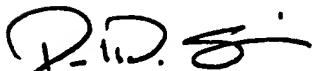
It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Tenhover by employing the specific coating compositions and substrates of Wen, because the bubblers of Wen do not form channels through the solid precursor and therefore provide a more consistent gaseous concentration of the precursor solid (col. 1, lines 5-30).

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul D Strain whose telephone number is (703)305-0606. The examiner can normally be reached on First Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P Beck can be reached on (703)308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3599 for regular communications and (703)305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.



Paul D. Strain  
October 1, 2000



Shrive Beck  
Supervisory Patent Examiner  
Technology Center 1700